



This document describes the environmental, power, and compressed-air requirements for the **T-2500E (SE)** and **T-2820** series of Precision Temperature Forcing Systems (PTFS).

**Environment:** Ambient temperature must be below +79 °F (26 °C). The grills for airflow to the refrigeration condenser must not be obstructed. At least 12 in. (30.48 cm) of clearance is required. Suggested floor space is approximately 40 X 36 inches. (102 X 91 cm).

**Power:** 200 to 240 VAC 50/60 Hz, single phase. Power transformer in system must be wired for the actual input power voltage/Hz. The power transformer is a multi-tap transformer. For USA operation, the transformer is wired for 208 VAC, 60 Hz power at the factory.

**Power Cord:** A 15 foot (4.6 m), 12 ga., 3-conductor power cord is supplied with the equipment. Power connector is a NEMA L6-20 twist-lock. If a longer power cord is required, wire gage must increase accordingly.

**Compressed Air:** 18 CFM (510 LPM) at 85 psi (586 kp) to 110 psi (758 kp). Must be clean, dry air that is free of oil (< .01 ppm) and particles. Dew point must be below +50 °F (10 °C) at 85 psi (586 kp).

**Note:** A male quick disconnect nipple (MIL-C-4109) with a 1/4 NPT male pipe thread is provided for the air connection. Thermonics' part number P2-181. The female quick disconnect that mates with this nipple is Thermonics' part number P2-234. If desired, the P2-181 can be removed and replaced with an alternative quick disconnect nipple of your choice.

**Compressed Air Supply Hose:** Supply hose must be capable of providing 18 CFM (510 LPM) at 85 psi (586 kp) to 110 psi (758 kp). Minimal inside diameter of .25 in. (.635 cm) is recommended for lengths up to 10 feet (3.048 m). Longer hoses require a minimum .375 in. (.953 cm) inside diameter.

**Air Compressor:** The following is an example specification for an air compressor system to operate one Thermonics' PTFS:

Compressor:

- 7 1/2 hp (5595 W)
- 25 CFM at 125 PSI (708 LPM at 863 kp)
- Integrated Refrigerated Dryer, 10°C dew point
- Water/Particulate Filter

Receiver Tank:

- 80 Gal. (303 L)

Coalescing Filter

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